

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-31 (Canceled)

Claim 32. (Previously Presented) A composition consisting of a recombinant modified Ankara (MVA) vector into which is inserted DNA sequences coding for (i) the early E6 polypeptide of a papillomavirus; (ii) the early E7 polypeptide of a papillomavirus; (iii) the late L1 polypeptide of a papillomavirus; and (iv) the late L2 polypeptide of a papillomavirus; each of said DNA sequences being placed under the control of independent elements necessary for its expression in a host cell or organism; wherein said recombinant MVA vector is provided in combination with a pharmaceutically acceptable carrier.

Claims 33-35. (Canceled)

Claim 36. (Previously Presented) The composition of claim 32, wherein said elements necessary for the expression of the DNA sequences comprise a promoter selected from the group consisting of the promoters of the thymidine kinase (TK), 7.5K, H5R and K1L genes.

Claim 37. (Canceled)

Claim 38. (Previously presented) The composition of claim 32, wherein said recombinant vector is a MVA vector and wherein said DNA sequences are inserted into at least one of the excision region selected from the I, II, III, IV, V and VI excision regions of said viral vector.

Claim 39. (Canceled)

Claim 40. (Previously Presented) The composition of claim 32, wherein said E6 or E7 or both E6 and E7 polypeptides are nononcogenic variants of the native E6 and E7 polypeptides of a papillomavirus,

wherein said nononcogenic variant of the E6 polypeptide is the native HPV-16 E6 polypeptide deleted of amino acids 111-115; and

wherein said nononcogenic variant of the E7 polypeptide is the native HPV-16 E7 polypeptide deleted of amino acids 21-26.

Claims 41-43. (Canceled)

Claim 44. (Previously Presented) A composition consisting of a recombinant modified Ankara (MVA) vector into which is inserted DNA sequences coding for (i) the early E6 polypeptide of a papillomavirus; (ii) the early E7 polypeptide of a papillomavirus; (iii) the late L1 polypeptide of a papillomavirus; and

(iv) the late L2 polypeptide of a papillomavirus; and (v) a polypeptide having an immunostimulatory activity;

wherein each of said DNA sequences is placed under the control of the independent elements necessary for its expression in a host cell or organism and wherein said polypeptide having an immunostimulatory activity is selected from the group consisting of interleukin-2, interleukin-7, and the co-adhesion molecule B7.2; and

wherein said recombinant MVA vector is provided in combination with a pharmaceutically acceptable carrier.

Claim 45. (Canceled)

Claim 46. (Previously Presented) The composition of claim 44, wherein the polypeptide having an immunostimulatory activity is interleukin-2.

Claim 47. (Canceled)

Claim 48. (Previously Presented) The composition of claim 44, consisting of one recombinant vector into which is inserted:

a DNA sequence coding for the E6 polypeptide of a papillomavirus, a DNA sequence coding for the E7 polypeptide of a papillomavirus, a DNA sequence coding for the L1 polypeptide of a papillomavirus, a DNA sequence coding for the L2 polypeptide of a papillomavirus and a DNA sequence coding for interleukin-2.

Claim 49. (Previously Presented) The composition of claim 48, wherein said E6 or E7 or both E6 and E7 polypeptides are, respectively, nononcogenic variants of the native E6 and E7 polypeptides of a human papillomavirus,

wherein said nononcogenic variant of the E6 polypeptide is the native HPV-16 E6 polypeptide deleted of amino acids 111-115; and

wherein said nononcogenic variant of the E7 polypeptide is the native HPV-16 E7 polypeptide deleted of amino acids 21-26.

Claims 50-52. (Canceled)

Claim 53. (Previously Presented) A method for the treatment or prevention of dysplasia or cancer of the neck of the uterus, comprising administering an effective amount of the composition of claim 32 to a patient in need of such treatment.

Claim 54. (Previously Presented) A method for the treatment or prevention of a papillomavirus infection, comprising administering an effective amount of the composition of claim 32 to a patient in need of such treatment.

Claim 55. (Previously Presented) A method for the treatment or prevention of dysplasia or cancer of the neck of the uterus, comprising administering an effective amount of the composition of claim 44 to a patient in need of such treatment.

Claim 56. (Previously Presented) A method for the treatment or prevention of a papillomavirus infection, comprising administering an effective amount of the composition of claim 44 to a patient in need of such treatment.

Claims 57-61. (Canceled)

Claim 62. (Previously Presented) The composition of claim 44, wherein said elements necessary for the expression of the DNA sequences comprise a promoter selected from the group consisting of the promoters of the thymidine kinase (TK), 7.5K, H5R and K1L genes.

Claim 63. (Canceled).

Claim 64. (Previously Presented) The composition of claim 44, wherein said recombinant vector is a MVA strain and wherein said DNA sequences are inserted into at least one of the excision region selected from the I, II, III, IV, V and VI excision regions of said viral vector.

Claim 65. (Previously Presented) A composition consisting of a recombinant modified Ankara (MVA) vector into which is inserted DNA sequences coding for (i) the E6 polypeptide of a papillomavirus (ii) the E7 polypeptide of a papillomavirus and (iii) a polypeptide having an immunostimulatory activity; each of said DNA sequences being placed under the control of independent elements

necessary for its expression in a host cell or organism and wherein said polypeptide having an immunostimulatory activity is selected from the group consisting of interleukin-2, interleukin-7, and the co-adhesion molecule B7.2; and wherein said recombinant MVA vector is provided in combination with a pharmaceutically acceptable carrier.

Claims 66-68. (Canceled)

Claim 69. (Previously Presented) The composition of claim 65, wherein said elements necessary for the expression of the DNA sequences comprise a promoter selected from the group consisting of the promoters of the thymidine kinase (TK), 7.5K, H5R and K1L genes.

Claim 70. (Canceled)

Claim 71. (Previously Presented) The composition of claim 65, wherein said recombinant vector is a MVA strain and wherein said DNA sequences are inserted into at least one of the excision region selected from the I, II, III, IV, V and VI excision regions of said viral vector.

Claim 72. (Previously Presented) The composition of claim 65, wherein the polypeptide having an immunostimulatory activity is interleukin-2.

Claim 73. (Previously Presented) The composition of claim 65, wherein said papillomavirus polypeptide is the E6 or the E7 or the E6 and E7 polypeptide of a human papillomavirus.

Claim 74. (Previously presented) The composition of claim 65, consisting of one recombinant MVA vector into which is inserted a DNA sequence coding for the E6 polypeptide of HPV-16, a DNA sequence coding for the HPV-16 E7 polypeptide and a DNA sequence coding for interleukin-2.

Claim 75. (Previously presented) The composition of claim 65, wherein said E6 or E7 or both E6 and E7 polypeptides are, respectively, nononcogenic variants of the native E6 and E7 polypeptides of a human papillomavirus,

wherein said nononcogenic variant of the E6 polypeptide is the native HPV-16 E6 polypeptide deleted of amino acids 111-115, and

wherein said nononcogenic variant of the E7 polypeptide is the native HPV-16 E7 polypeptide deleted of amino acids 21-26.

Claims 76-78. (Canceled)

Claim 79. (Previously Presented) A method for the treatment or prevention of dysplasia or cancer of the neck of the uterus, comprising administering an effective amount of the composition of claim 65 to a patient in need of such treatment.

Claim 80. (Previously Presented) A method for the treatment or prevention of a papillomavirus infection, comprising administering an effective amount of the composition of claim 65 to a patient in need of such treatment.